

Oct 1938

1 SHEET

[This Drawing is a reproduction of the Original on a reduced scale.]

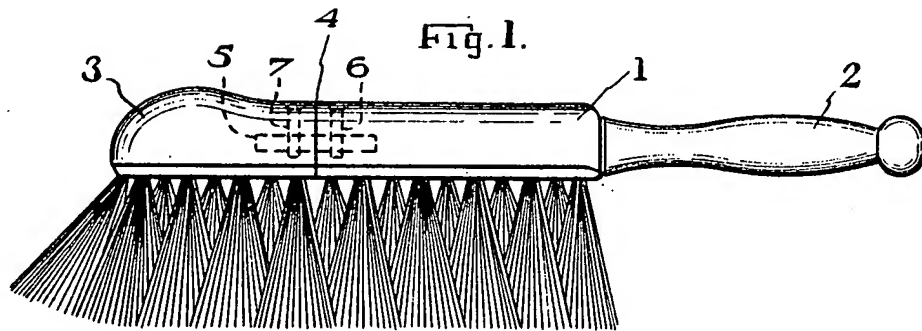
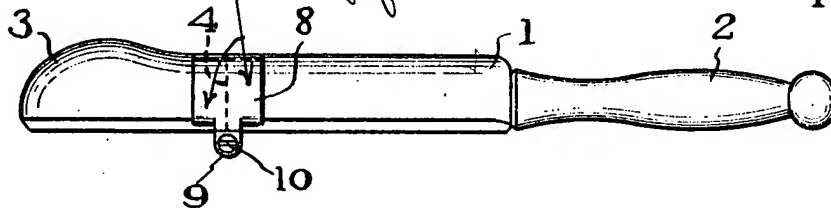


Fig. 2.



*holes may be formed for screws*

Fig. 8.

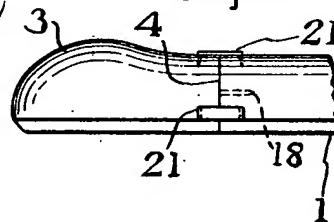


Fig. 3.

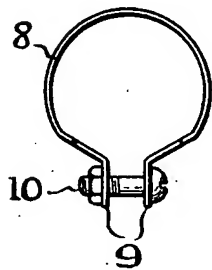


Fig. 4.

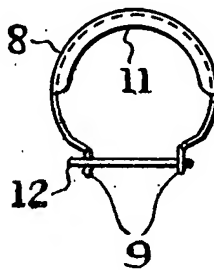


Fig. 5.

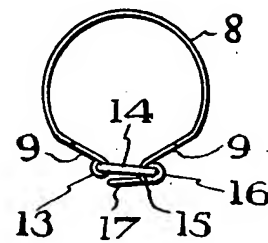


Fig. 7.

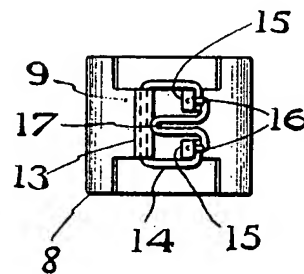
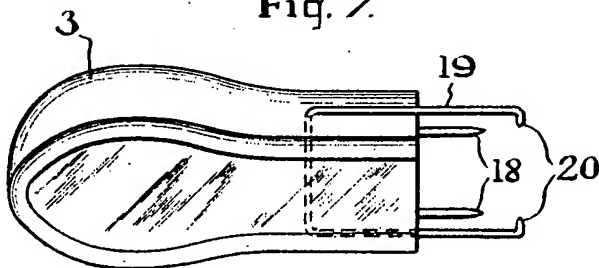


Fig. 6.

15/176.3

## PATENT SPECIFICATION



Application Date: July 7, 1937. No. 18831/37.

Complete Specification Left: March 31, 1938.

Complete Specification Accepted: Oct. 14, 1938.

493.802/15/176

## PROVISIONAL SPECIFICATION

## Improvements in or relating to Hand Sweeping Brushes

I, NORMAN AUSTIN SWALLOW, a British subject of 8, Park Mount, Pool Bank, near Leeds, in the County of York, do hereby declare the nature of this invention to be as follows:—

This invention relates to hand sweeping brushes more particularly of the carriage or carpet brush type having a handle in alignment with or on the end of the bristle stock.

Brushes of this type become worn away more rapidly at or towards that end remote from the handle and in consequence they have to be replaced by entirely new brushes when there is still a considerable useful life in the handle end of the old stock.

Now the object of the present invention is the provision of means whereby the maximum life can be obtained from hand sweeping brushes which, as a result of the manner in which they are used, are worn down more rapidly at one end than the other.

According to the invention, the hand brush is provided at that end which becomes worn away more rapidly with a readily detachable stock end section, the arrangement being such that when the bristles of said section have been worn down it can be removed and be replaced by a new stock end section so as to make the brush almost as good as new.

Any appropriate form of fastening means may be employed for securing the stock end section to the remainder or other end of the stock. For example, a spigot and socket connection with screw clamping means may conveniently be employed for securing the stock parts or sections together and permitting their ready detachment.

For convenience in manufacture the replacement brush stock end sections may be made integrally in pairs in the form of a double ended stock which is subsequently sawn through transversely at the centre to afford two end sections each of which is then formed or adapted to receive the com-

plementary fitting on the handle end section for securing the new stock end section thereto.

In an embodiment of the invention, the brush stock is made in two parts or end sections secured together by a spindle or bar passed into aligned bearing holes formed in the two parts and leading from their adjacent or jointing faces, said spindle or bar passing half into one stock end section and half into the other. The spindle or bar may be fixed in the handle end section of the stock by set-screws passed through the stock body into engagement with transverse holes in said spindle or bar, whilst the outer or detachable stock end section may be similarly secured to the bar or spindle, the arrangement being such that by removing the set screws holding the detachable section, the latter can be withdrawn from the bar or spindle, and another new end stock section can be secured thereon by means of the same screws.

Preferably the spindle or bar and the bearing holes in the stock sections will be of square or other appropriate straight-sided cross-section so that the stock sections will be accurately positioned or aligned end to end and will be prevented from relative turning in use.

In this connection the replacement stock ends may be made in the form of a complete stock with the usual rounded ends, said stock being sawn through the centre to afford the two stock ends which are then formed with the bearing holes to receive or take over the bar or spindle projecting from the brush stock part to which it is to be attached, each replacement stock part being formed with the set screw holes leading into said bearing holes ready for use when required.

Dated this 6th day of July, 1937.

NORMAN AUSTIN SWALLOW.

per John E. Walsh & Co.,  
7, East Parade, Leeds, 1,  
and at Halifax,  
Agents for Applicant.

## COMPLETE SPECIFICATION

**Improvements in or relating to Hand Sweeping Brushes**

I, NORMAN AUSTIN SWALLOW, a British subject of 8, Park Mount, Pool Bank, near Leeds, in the County of York, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

This invention relates to hand sweeping brushes more especially of the carriage or carpet brush type having a handle in alignment with or on the end of the bristle stock.

Brushes of this type become worn away more rapidly at or towards that end remote from the handle and in consequence they have to be replaced by entirely new brushes when there is still a considerable useful life in the handle end of the old stock, or a renewable end section has to be provided so that the maximum life can be obtained from the brush.

Now the object of the present invention is the provision of improved means for attaching renewable end sections to hand sweeping brushes.

According to this invention there is provided a hand brush provided at that end which becomes worn away more rapidly with a readily detachable stock end section butt jointed to the brush stock and having an element (or elements) extending across the joint for aligning the end section with the brush stock, with additional means for holding the element (or elements) against disengagement from one or both of the two parts of the brush.

According to a feature of the invention, the hand brush is provided with a readily detachable stock end section, the arrangement being such that a spigot (of straight or tapered formation) and socket connection with screw clamping means may conveniently be employed for securing the stock parts or sections together and permitting their ready detachment.

The invention embraces a clip device for embracing wholly or partially the joint between the stock end section and the brush stock proper.

For convenience in manufacture the replacement brush stock end sections may be made integrally in pairs in the form of a double ended stock which is subsequently sawn through transversely at the centre to afford two end sections each of which is then formed or adapted to receive the desired securing device, such as a complementary fitting on the handle end section for securing the new stock end section thereto.

tion thereto.

Referring now to the accompanying drawings in which several embodiments of the invention are shown by way of example only:—

Fig. 1 is a side view of a hand brush with a detachable end section secured thereto by a spigot connection;

Fig. 2 is a side view of a brush stock with a detachable end section secured thereto by a clip device;

Fig. 3 is an enlarged end view of the clip shown in Fig. 2;

Fig. 4 is a modification of Fig. 3;

Figs. 5 and 6 are respectively an end view and a plan of a clip with a lever fastening;

Fig. 7 is a perspective view of a detachable end section with spiked fastening means;

Fig. 8 is a side view of an end section secured to a brush stock by spiked fastening means and clips.

In Fig. 1 the brush stock is made in two parts comprising the brush stock proper 1, with a handle 2, and a detachable end section 3 secured to the stock 1 by a spindle or bar 5 (hereinafter termed "bar") passed into aligned bearing holes formed in the two parts 1 and 3 and leading from their adjacent or jointing faces forming the joint 4, said bar passing half into the stock 1 and half into the end section 3. The bar 5 is fixed in the stock 1 by a set screw 6 passed through the stock body into engagement with a transverse hole in said bar, whilst the detachable stock end section 3 is similarly secured to the bar 5 by a set screw 7, the arrangement being such that by removing the set screw 7 holding the detachable section 3, the latter can be withdrawn from the bar 5, and another new end stock section can be secured thereon by means of the same or a different screw.

The bar 5 and the bearing holes therefor in the stock section 1 and 3 may be of square or other appropriate straight sided cross section so that the stock sections will be accurately positioned or aligned end to end and will be prevented from relative turning in use, although this is not necessary and a round bar provides a cheaper construction. To hold the set screws in position the holes in the bar 5 are screw threaded but they may be plain and have wood screws passed there-through.

If desired the bar 5 may be simply driven firmly into the stock 1 or end section 3 and be removable only with respect

to the other part. Alternatively, a wood screw may be screwed into one of the parts until only its plain shank is projecting when the head may be cut off.

- 6 In this connection the replacement stock ends 3 may be made in the form of a complete stock with the usual rounded or other ends, said stock being sawn through the centre to afford two stock ends 3 which are then formed with the bearing holes to receive or take over the bar 5 projecting from the brush stock 1 to which it is to be attached, each replacement stock end being formed with the set or wood screw holes leading into said bearing holes ready for use when required.

In Fig. 2 the brush stock 1 and end section 3 are joined together by a clip 8 which extends over the joint 4 and is let into the two parts to furnish a neat finish. As also shown in Fig. 3, the clip is provided with two pendant tongues 9 for the reception of a bolt 10 which tightens the clip about the joint and holds the two parts securely together. The tongues 9 and bolt 10 will be more or less hidden within the bristles of the brush but easily accessible. As an additional fastening holes may be formed in the clip 8 for screws or nails to be passed into the stock 1 and section 3.

In Fig. 4 the clip 8 is provided with a lip 11 at each of its ends for the reception of which grooves would be cut in the stock 1 and end section 3; the lips 11 acting as a safeguard against the two parts slipping out of the clip 8. The clip in this instance has a wire or other fastening 12 for holding the tongues 9 in position. The fastening 12 is threaded through a slot in one tongue 9 and pressed or sprung into engagement with the other tongue which is shaped to lock with the fastening. The lips 21 may be replaced by serrations adapted to pierce the brush stock and end section.

Figs. 5 and 6 show a clip 8 with the tongues 9 respectively forming a hinge 13 for the loop 14 and a pair of curved ends 15 within which the cam shaped ends 16 of the lever 17 are adapted to work. The cam shaped ends 16 receive, and pivot about, the ends of the loop 14 so that when the lever is in the position shown, the clip 8 is constricted by the loop 14 drawing the hinge 13 and the cam shaped ends 16 thrusting the curved ends 15.

In Fig. 7 an end section 3 is provided with a pair of spikes 18 to be driven into the end of a brush stock 1 and, to hold the two parts together, a wire fastening 19 is passed through the section to extend beyond a joint 4 so that its ends 20 may be forced into a brush stock 1 at will. If desired the spikes 18 may be replaced by a

bar 5 (or equivalent wood screw) or a double ended wood screw e.g., one end to be screwed into the section 3 and the other into the stock 1.

It will be understood a variety of fastening devices may be employed, for example, as shown in Fig. 8, spikes 18 (or equivalent means) are carried by an end section 3 to enter the stock 1 and the joint 4 is secured by spiked clips 21, staples or the like which bridge the joint and pierce each of the parts 1 and 3.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A hand brush provided at that end which becomes worn away more rapidly with a readily detachable stock end section butt jointed to the brush stock, and having an element (or elements) extending across the joint for aligning the end section with the brush stock, with additional means for holding the element (or elements) against disengagement from one or both of the two parts of the brush.

2. A hand brush as claimed in claim 1, wherein a spigot and socket connection with screw clamping means are employed for securing the detachable end section to the brush stock and permitting their ready detachment.

3. A hand brush as claimed in claim 1, wherein a clip furnished with securing means is adapted to embrace the brush stock and end section at their joint and hold the two parts together.

4. A hand brush as claimed in claim 3, having a clip furnished with a bolt for constricting the clip.

5. A hand brush as claimed in claims 3 and 4 having a clip with inwardly turned lips or serrations to enter the brush stock and end section.

6. A hand brush as claimed in claim 3, having a clip furnished with a lever and loop fastening device.

7. A hand brush as claimed in claim 1, provided with a detachable end section having one or more projections to enter the end of a brush stock and a wire fastening whose spiked ends can be forced into the sides of the brush stock.

8. A hand brush as claimed in claim 1, provided with a detachable end section having one or more projections to enter the end of a brush stock and one or more spiked clips, staples or the like for bridging the joint between the stock and end section.

9. A hand brush as claimed in any of the preceding claims, wherein the detachable end sections are made integrally in pairs in the form of a double ended stock

which is subsequently sawn through transversely at the centre.

10. A hand brush end section arranged constructed and adapted for use substantially as herein described.

11. A hand brush with a detachable end section arranged constructed and

adapted for use substantially as herein described.

Dated this 31st day of March, 1938.

W. FAIRBURN-HART & CO.,

Chartered Patent Agents,

12, South Parade, Leeds, 1, and  
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